

Amendment & Reconsideration  
Serial No. 10/658,639

Docket 5000-1-433

### REMARKS

Claims 1-20 are rejected. Claims 1, 5, and 15 and 19 have been amended. Claim 1, 9 and 15 are independent claims. Claims 1-20 are now pending. Applicants respectfully request reconsideration based upon the amendments to the claims and the remarks herein.

Dependent claims 5 and 19 stand objected to for informalities. In response, applicants have corrected dependent claims 5 and 19 as suggested by the examiner.

Applicants respectfully request withdrawal of these grounds of objection.

Claims 1-4, 6, 8, 15-18 and 20 stand rejected under 35 USC § 102(b) as being anticipated by Ono, et al (US 6,388,786). Moreover, claims 5, 7, 9-13 and 19 stand rejected under 35 USC § 103(a) as being unpatentable by Ono, et al (US6,388,786) in view of Kitajima et al (US 5,515,196) and Kaiser et al (Kaiser et al., "Reduced Complexity Optical Duobinary 10 Gb/s Transmitter Setup Resulting in an Increased Transmission Distance," IEEE Photonics Technology Letters, Vol. 13, No. 8, August 2001, page 884-886).

Claim 1, as currently presented recites a duobinary optical transmission apparatus comprising, *inter alia*, the duobinary optical generating section having a T-flip-flop for separating by odd or even positions a group of bits in the inputted NRZ electrical signal. Claim 9 as currently presented recites a similar feature. Similarly claim 15 as amended recites a similar method.

In contrast, Ono as admitted by the Office Action fails to disclose a T-flip-flop for separating by odd or even positions a group of bits in the inputted NRZ electrical signal.

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Hence, Ono fails to anticipate, suggest or teach the present invention which recites in all three base claims a T-flip-flop for separating by odd or even positions a group of bits in the inputted NRZ electrical signal or a method of doing the same.

Kitajima, as read by applicant also fails to disclose a T-flip-flop for separating by odd or even positions a group of bits in the inputted NRZ electrical signal or a method of doing the same as recited in all three base claims. Unlike the present invention, Kitajima discloses the use of two T-flip-flops in FIG 8 which work in conjunction with one another and generate the waveform in FIG. 8A. As a result of Kitajima having two T flip-flops, the waveform generated by Kitajima's T flip-flops as seen in FIG. 8A are different than the waveforms of FIG. 5 generated by the present invention T flip-flop. The difference in waveform is evident in the fact that the present invention provides for a modulation scheme where each component in apparatus to create the output. Hence, merely changing one component in a modulation scheme would result in a different output signal.

In other words, Kitajima fails to suggest or teach the present invention which recites in all three base claims a T-flip-flop for separating by odd or even positions a group of bits in the inputted NRZ electrical signal or a method of doing the same.

As discussed in response to the last Office Action, Kaiser discloses a precoder constructed of an inverter, an AND gate and a T-flip-flop which functionally operates according to the timing diagram in FIG. 3. Applicants respectfully submit that Kaiser's precoder does not operate to separating a group of '1' in odd positions or even positions in the sequence from the NRZ electrical signal. First, Kaiser's precoder does not separating a group of '1' in odd positions or even positions in the sequence from the NRZ electrical as recited in the base claims. Kaiser's precoder, as far as applicants understand

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it functions produces a bit sequence based upon a clock, and the logic circuit which yields a predetermined bit sequence which masks the input bit sequence but does not show separating a group of '1' in odd positions or even positions in the sequence from the NRZ electrical signal.

Secondly, because Kaiser's precoder contains additional logic components which yield a different output than the present invention (which is just a T-flip-flop) you can not simply combine the precoder with another device such as Ono's device. In other words, Kaiser's precoder combined with either reference would not result in the present invention as recited in the base claim but would teach away from the present invention.

Therefore, Kaiser fails to suggest or teach the present invention which recites in all three base claims a T-flip-flop for separating by odd or even positions a group of bits in the inputted NRZ electrical signal or a method of doing the same

Applicants submit that the combination of Ono, Kitijma and Kaiser fails to suggest or teach the present invention which recites in all three base claims a T-flip-flop for separating by odd or even positions a group of bits in the inputted NRZ electrical signal or a method of doing the same as recited in the base claims.

Applicants respectfully request reconsideration and withdrawal of this ground of rejection.

The other claims in this application are each dependent from the independent claim discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of the patentability of each on its own merits is respectfully requested.

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For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,



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